

REMARKS

Claims 6, 9-11, 13 and 22-74 are pending in the above-captioned patent application following this amendment. Claims 1-21 have been rejected. The applicants respectfully traverse the rejection of claims 6, 9-11 and 13. Claims 1-5, 7-8, 12 and 14-21 have been canceled without prejudice and new claims 22-74 have been added by this amendment for the purpose of expediting the patent application process in a manner consistent with the goals of the Patent Office pursuant to 65 Fed. Reg. 54603 (September 8, 2000), even though the applicants believe that the previously pending claims were allowable.

Support for the new claims can be found throughout the originally filed application. More specifically, support for new claims 22-74 can be found at least in original claims 1-21, in Figures 3A-3C and 4A-4C, and in the specification at page 8, line 23 through page 10, line 33.

No new matter is believed to have been added by this amendment. Consideration of the pending application is respectfully requested.

Amendments to the Claims

The applicants have amended claims 6, 9 and 13. Claim 6 has been amended to be rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Therefore, the scope of amended claim 6 has not changed from that of originally filed claim 6. Claims 9 and 13 have been amended to depend directly or indirectly from claim 6.

Rejections Under 35 U.S.C. § 102

Claims 1-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Imamura (EPN 549 814 A1). Claims 1-5, 7-8, 12 and 14-21 have been canceled without prejudice by this amendment. Therefore, the rejection of the Patent Office regarding claims 1-5, 7-8, 12 and 14-21 is considered to be moot.

The applicants respectfully traverse the rejection of claim 6. As provided above, claim 6 has been rewritten in independent form. The Patent Office asserts that Imamura et al. teaches a "head stack assembly comprising ... a base plate ... and a fine positioner ... secured directly to the base plate ... wherein the base plate further comprises ... a pair

of spaced apart positioner cavities (Fig. 4B, (12a)) that receive the fine positioner (14), a pair of flex sections (Fig. 5, (12)) that allow the base plate to flex, wherein the positioner cavities are positioned between the flex sections ...". The applicants contend that this is not correct.

Imamura et al. does not teach that the positioner cavities are positioned between the flex sections. The Patent Office has equated the "expansion regions 12" of Imamura et al. with the "flex sections 86" of the present application. Further, the Patent Office has equated the "recessed portion 12a" with the "positioner cavities 85" of the present invention. However, as repeatedly illustrated in Imamura et al., the recessed portions 12a are not positioned between the expansion regions 12. (See Figs. 3, 4A, 4B, 5, 6, 7A, 7B, 10, 11, 13 and 14, as examples). Further, the applicants assert that the description of Imamura et al. does not teach or suggest positioning the recessed portions 12a between the expansion regions 12.

In contrast to Imamura et al., amended claim 6 requires a "head stack assembly ... comprising: an actuator arm; a coarse positioner that moves the actuator arm relative to the storage disk; a transducer assembly including a load beam, a flexure secured to the load beam, and a data transducer secured to the flexure; a base plate securing the transducer assembly to the actuator arm, the base plate including a pair of flex sections that allow the base plate to flex and a pair of spaced apart positioner cavities that are positioned between the flex sections; and a fine positioner secured to the base plate, the fine positioner being positioned in the positioner cavities, the fine positioner moving a portion of the base plate relative to the actuator arm." These features are not taught or suggested by Imamura et al. Therefore, amended claim 6 is believed to be patentable. Because amended claims 9-11 and 13 depend directly or indirectly from amended claim 6, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 6, 9-11 and 13 be withdrawn, and that these claims be allowed.

NEW CLAIMS

New claims 22-74 have been added by this amendment. New claims 22-74 are of a slightly different scope than the previously pending claims. However, in view of the cited reference, claims 22-74 are considered to be patentable.

In contrast to the cited reference, new claim 22 is directed toward a "disk drive, comprising: an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base plate including a flex section that allows the base plate to flex; and a fine positioner that is secured to the base plate so that the fine positioner does not contact the flex section, the fine positioner selectively flexing at least a portion of the base plate." These features are not taught or suggested by the cited reference. Therefore, new claim 22 is believed to be patentable. Because claims 23-36 depend directly or indirectly from claim 22, they are likewise considered patentable.

Further, new claim 37 is directed toward a "disk drive, comprising: an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm; and a first piezoelectric motor having a proximal end and a distal end, that ends being secured to the base plate so that the first piezoelectric motor is under compression, the first piezoelectric motor moving a portion of the base plate relative to the actuator arm." These features are not taught or suggested by the cited reference. Therefore, new claim 37 is believed to be patentable. Because claims 38-49 depend directly or indirectly from claim 37, they are likewise considered patentable.

Moreover, new claim 50 is directed toward a "disk drive, comprising: an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base plate including a plate mount that secures the base plate to the actuator arm; and a pair of piezoelectric motors that are each secured to the base plate substantially between the plate mount and the data transducer, the piezoelectric motors being substantially parallel to each other, the piezoelectric motors moving a portion of the base plate relative to the actuator arm." These features are not taught or suggested by the cited reference. Therefore, new claim 50 is believed to be patentable. Because

claims 51-58 depend from claim 50, they are likewise considered patentable.

New claim 59 is directed toward a "disk drive, comprising: an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base plate including a positioner cavity that extends through the base plate; and a fine positioner that is secured to the base plate so that the fine positioner is positioned over at least a portion of the positioner cavity, the fine positioner selectively flexing at least a portion of the base plate." These features are not taught or suggested by the cited reference. Therefore, new claim 59 is believed to be patentable. Because claims 59-66 depend directly or indirectly from claim 59, they are likewise considered patentable.

Additionally, new claim 67 is directed toward a "method ... comprising the steps of: securing a transducer assembly to an actuator arm with a base plate having a flex section that flexes; securing a fine positioner to the base plate so that the fine positioner is not in contact with the flex section; and flexing the flex section with the fine positioner to cause at least a portion of the base plate to move relative to the actuator arm." These steps are not taught or suggested in the cited reference. Therefore, new claim 67 is believed to be patentable. Because claims 68-74 depend directly or indirectly from claim 67, they are likewise considered patentable.

Marked Up Version to Show Changes Made

In the Specification:

The paragraph beginning on page 5, line 29 has been amended as follows:

A detailed description of the various components of a disk drive 10 is provided in U.S. Patent No. 5,208,712, issued to Hatch et al., and assigned to Quantum Corporation, the assignee of the present invention.] The contents of U.S. Patent No. 5,208,712 are incorporated herein by reference. [Accordingly, only the structural aspects of a disk drive 10 which are particularly significant to the present invention are provided in detail herein.]

In the Claims:

Claims 6, 9 and 13 have been amended as follows:

6. (First Amended) [The] A head stack assembly [of claim 5 wherein the positioner cavities are positioned between the flex sections.] for a disk drive, the disk drive including a storage disk, the head stack assembly comprising:

an actuator arm;

a coarse positioner that moves the actuator arm relative to the storage disk;

a transducer assembly including a load beam, a flexure secured to the load beam, and a data transducer secured to the flexure;

a base plate securing the transducer assembly to the actuator arm, the base plate including a pair of flex sections that allow the base plate to flex, and a pair of spaced apart positioner cavities that are positioned between the flex sections; and

a fine positioner secured to the base plate, the fine positioner being positioned in the positioner cavities, the fine positioner moving a portion of the base plate relative to the actuator arm.

9. (First Amended) A disk drive comprising the head stack assembly of claim [1] 6, and a storage disk[, the storage disk including a target track].

13. (First Amended) The disk drive of claim [12] 9 wherein the fine positioner is a piezoelectric motor.

Claims 1-5, 7-8, 12 and 14-21 have been canceled without prejudice.

Claims 22-74 have been added.

CONCLUSION

In conclusion, Applicant respectfully asserts that claims 6, 9-11, 13 and 22-74 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-456-1951 for any reason that would advance the instant application to issue.

Dated this 20th day of December, 2002.

Respectfully submitted,



JAMES P. BRODER
Attorney for Applicant
Registration No. 43,514

THE LAW OFFICE OF STEVEN G. ROEDER
5560 Chelsea Avenue
La Jolla, California 92037
Telephone: (858) 456-1951